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# Initial treatment and survival in a national unselected Danish cohort of 4163 patients with pancreatic cancer

L.S. Rasmussen[1], B. Vittrup[2], M. Ladekarl[3], P. Pfeiffer[4], M.K. Yilmaz[1], L.Ø. Poulsen[1], K. Østerlind[5], H. Skuladottir[6], C.P. Hansen[7], M.B. Mortensen[8], F.V Mortensen[9], M. Sall[10], U.G. Falkmer[1], C. Fristrup[11]

[1]Department of Oncology, Clinical Cancer Research Center, Aalborg University Hospital, Aalborg, Denmark; Department of Clinical Medicine, Faculty of Medicine, Aalborg University, Denmark, [2]Department of Oncology, Herlev and Gentofte Hospital, University of Copenhagen, Copenhagen, Denmark, [3]Department of Oncology, Aarhus University Hospital, Aarhus, Denmark, [4]Department of Oncology, Odense University Hospital, Odense, Denmark, [5]Department of Oncology, North Sealand Hospital, Hillerød, Denmark, [6]Department of Oncology, Herning Hospital, Herning, Denmark, [7]Department of Surgical Gastroenterology, Rigshospitalet, Copenhagen University Hospital, Copenhagen, Denmark, [8]Odense Pancreas Center (OPAC), Department of Surgery, Odense University Hospital, Odense, Denmark, [9]Department of Surgical Gastroenterology, Aarhus University Hospital, Aarhus, Denmark, [10]Department of Surgical Gastroenterology, Aalborg University Hospital, Aalborg, Denmark, [11]Danish Pancreatic Cancer Database; Department of Surgery, Odense University Hospital, Odense, Denmark

## Background

Nationwide data on the efficacy of primary treatment on **overall survival (OS)** in an entirely unselected population of patients with pancreatic cancer (PC) have not been reported before.

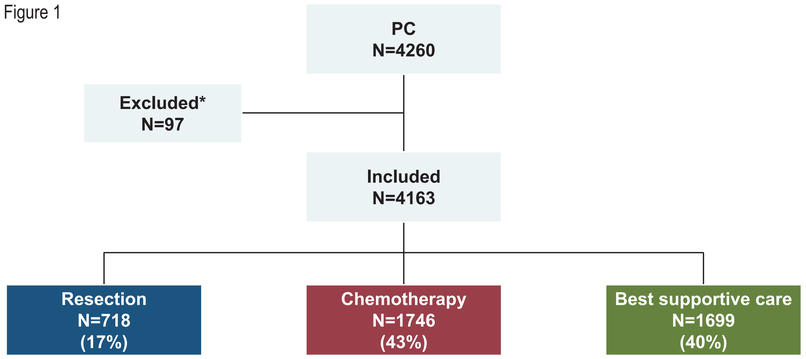
## Aim

To investigate the effect of initial treatment on OS in all patients with PC in Denmark diagnosed in a recent five-year period.

## Material and Methods

- From 1 May 2011 to 30 April 2016, 4260 patients were identified in the national Danish Pancreatic Cancer Database (DPCD), Figure 1.
- Patients' characteristics are presented in Table 1.
- OS was analysed from the date of the initial treatment, either resection or chemotherapy or from the date of diagnosis in case of best supportive care (BSC). Last clinical follow-up was 10 September 2017.
- Treatment and clinical outcome are presented in Figure 2, Table 2 and Figure 3.

Figure 1



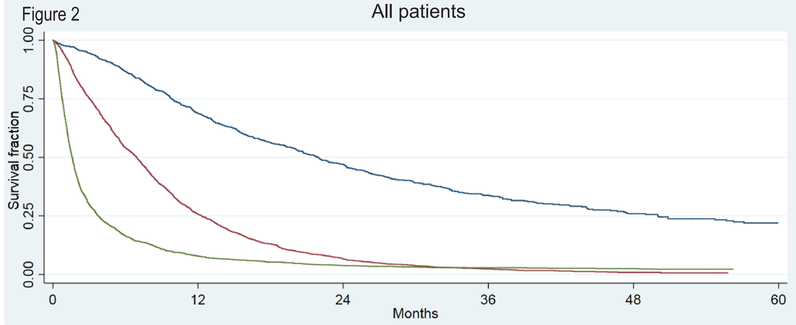

*Excluded: Preoperative/neoadjuvant chemotherapy followed by resection: 56, other malignancies: 26, incorrect registration of treatment: 13, lost to follow-up: 2.

## Results

| Table 1 | Resection (n=718) | Chemotherapy (n=1746) | BSC (n=1699) | All (n=4163) |
|---|---|---|---|---|
| **Age;years** (median and range) | 67 (13-86) | 68 (34-90) | 74 (24-100) | 70 (13-100) |
| **Gender** | | | | |
| Female | 338 (47%) | 813 (47%) | 843 (50%) | 1994 (48%) |
| Male | 380 (53%) | 933 (53%) | 856 (50%) | 2164 (52%) |
| **Charlson comorbidity index** | | | | |
| 0-2 | 561 (78%) | 1301 (75%) | 1024 (60%) | 2886 (69%) |
| >3 | 157 (22%) | 445 (25%) | 675 (40%) | 1277 (31%) |
| **M-status*** | | | | |
| 0 | 718 (100%) | 905 (52%) | 847 (50%) | 1752 (51%) |
| 1 | 0 (0%) | 841 (48%) | 852 (50%) | 1693 (49%) |
| **Diagnosis** | | | | |
| Pathology | 718 (100%) | 1642 (94%) | 1288 (76%) | 3648 (88%) |
| Clinical | 0 (0%) | 104 (6%) | 411 (24%) | 515 (12%) |

Abbreviation; BSC: Best suppotive care.
* M-status; M1: patients coded with metastatic disease in DPCD within 60 days from diagnosis.

Figure 2



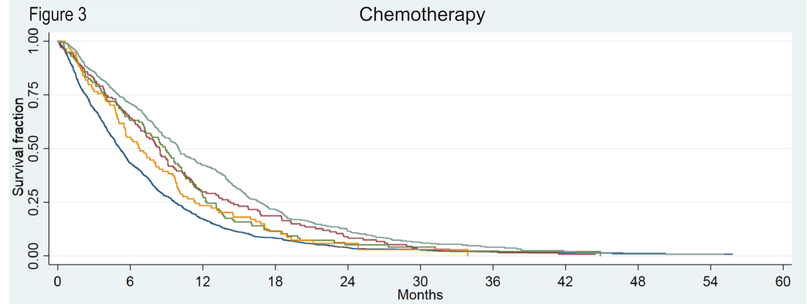

| Treatment | Patients No. | Median overall survival, months (95% confidence interval) |
|---|---|---|
| Resection | 718 | 21.9 (20.0-24.2) |
| Chemotherapy | 1746 | 6.9 (6.4-7.3) |
| BSC* | 1697 | 1.6 (1.5-1.7) |

Abbreviation; BSC: Best supportive care.
*Two patients were excluded from the survival analyses due to diagnosis date = date of death.

| Table 2 Resection | | |
|---|---|---|
| Lymph node metastases* | Patients No. | Median overall survival, months (95% confidence interval) |
| N- | 215 | 36.9 (28.6-44.7) |
| N+ | 465 | 17.5 (15.4-20.1) |

Abbreviations; N-: Without lymph node metastases, N+: With lymph node metastases.
*38 patients without histopathological reports on lymph node status were excluded.

Figure 3




| Regimen* | Patients No. | Median overall survival, months (95% confidence interval) |
|---|---|---|
| Gem monotherapy | 938 | 5.1 (4.8- 5.6) |
| FOLFIRINOX | 435 | 10.0 (9.2-11.0) |
| GemCap | 134 | 8.4 (6.9-9.1) |
| GemS1 | 114 | 8.9 (7.2-10.3) |
| GemPac | 94 | 6.7 (5.5-8.7) |

Abbreviations: Gem: gemcitabine, FOLFIRINOX: 5-flourouracil, leucovorin, irinotecan and oxaliplatin, Cap: capecitabine, S1: tegafur/gimeracil/oteracil, Pac: nab-paclitaxel.
*31 patients with other regimens as initial treatment than those listed were excluded.

## Conclusion

- Resected lymph node negative patients had the longest survival.
- Patients initially treated with chemotherapy (mono or combination) had slightly shorter median OS than found in randomised controlled trials.
- The outcome of gemcitabine monotherapy was poor, possibly reflecting less treatment effect and selection of less fit patients.
- To reduce the group of BSC patients, new diagnostic methods are required.

AALBORG UNIVERSITY HOSPITAL

**Poster no. 743**
**Louise Skau Rasmussen**
**MD, PhD student, loskr@rn.dk**
**Department of Oncology,**
**Aalborg University Hospital, Denmark**

AALBORG UNIVERSITY
DENMARK